ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **EM1614456**	Page	: 1 of 4
Amendment	: **1**		
Client	: **ZILTEK PL**	Laboratory	: Environmental Division Melbourne
Contact	: MR RICHARD STEWART	Contact	: Shirley LeCornu
Address	: 40-46 West Thebarton Rd Thebarton SA 5031	Address	: 4 Westall Rd Springvale VIC Australia 3171
Telephone	: 8152 9392	Telephone	: +61-3-8549 9630
Project	: RB+ Tersus	Date Samples Received	: 22-Nov-2016 10:45
Order number	: ----	Date Analysis Commenced	: 02-Dec-2016
C-O-C number	: ----	Issue Date	: 14-Dec-2016 11:24
Sampler	: ----		
Site	: ----		
Quote number	: ADBQ/008/14		
No. of samples received	: 1		
No. of samples analysed	: 1		

Accreditation No. 825
Accredited for compliance with
ISO/IEC 17025 - Testing

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QA/QC Compliance Assessment to assist with Quality Review and Sample Receipt Notification.

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is carried out in compliance with procedures specified in 21 CFR Part 11.

Signatories	*Position*	*Accreditation Category*
Dilani Fernando	Senior Inorganic Chemist	Melbourne Inorganics, Springvale, VIC

General Comments

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the USEPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request.

Where moisture determination has been performed, results are reported on a dry weight basis.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

When no sampling time is provided, the sampling time will default 00:00 on the date of sampling. If no sampling date is provided, the sampling date will be assumed by the laboratory and displayed in brackets without a time component.

Where a result is required to meet compliance limits the associated uncertainty must be considered. Refer to the ALS Contact for details.

Key : CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
^ = This result is computed from individual analyte detections at or above the level of reporting
ø = ALS is not NATA accredited for these tests.
~ = Indicates an estimated value.

- This is a rebatch of EM1613992.
- Amendment (8/12/16): This report has been amended and re-released to allow the reporting of additional analytical data.

Analytical Results

Sub-Matrix: ASLP LEACHATE (Matrix: WATER)			Client sample ID	RB+	----	----	----	----
			Client sampling date / time	18-Nov-2016 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EM1614456-001	--------	--------	--------	--------
				Result	----	----	----	----
EG005C: Leachable Metals by ICPAES								
Antimony	7440-36-0	0.1	mg/L	<0.1	----	----	----	----
Arsenic	7440-38-2	0.1	mg/L	<0.1	----	----	----	----
Barium	7440-39-3	0.1	mg/L	**0.4**	----	----	----	----
Beryllium	7440-41-7	0.05	mg/L	<0.05	----	----	----	----
Cadmium	7440-43-9	0.05	mg/L	<0.05	----	----	----	----
Chromium	7440-47-3	0.1	mg/L	<0.1	----	----	----	----
Copper	7440-50-8	0.1	mg/L	**0.2**	----	----	----	----
Lead	7439-92-1	0.1	mg/L	<0.1	----	----	----	----
Nickel	7440-02-0	0.1	mg/L	<0.1	----	----	----	----
Selenium	7782-49-2	0.05	mg/L	<0.05	----	----	----	----
Silver	7440-22-4	0.1	mg/L	<0.1	----	----	----	----
Vanadium	7440-62-2	0.1	mg/L	<0.1	----	----	----	----
Zinc	7440-66-6	0.1	mg/L	<0.1	----	----	----	----
Thallium	7440-28-0	0.05	mg/L	<0.05	----	----	----	----
EG020C: Leachable Metals by ICPMS								
Arsenic	7440-38-2	0.005	mg/L	<0.005	----	----	----	----
Barium	7440-39-3	0.1	mg/L	**0.4**	----	----	----	----
Beryllium	7440-41-7	0.001	mg/L	<0.001	----	----	----	----
Cadmium	7440-43-9	0.001	mg/L	<0.001	----	----	----	----
Chromium	7440-47-3	0.01	mg/L	<0.01	----	----	----	----
Copper	7440-50-8	0.01	mg/L	**0.20**	----	----	----	----
Nickel	7440-02-0	0.01	mg/L	**0.02**	----	----	----	----
Lead	7439-92-1	0.01	mg/L	<0.01	----	----	----	----
Antimony	7440-36-0	0.01	mg/L	<0.01	----	----	----	----
Selenium	7782-49-2	0.01	mg/L	<0.01	----	----	----	----
Thallium	7440-28-0	0.01	mg/L	<0.01	----	----	----	----
Vanadium	7440-62-2	0.01	mg/L	<0.01	----	----	----	----
Zinc	7440-66-6	0.1	mg/L	<0.1	----	----	----	----
Silver	7440-22-4	0.01	mg/L	<0.01	----	----	----	----
EG035C: Leachable Mercury by FIMS								
Mercury	7439-97-6	0.001	mg/L	<0.0010	----	----	----	----

Analytical Results

Sub-Matrix: SOIL (Matrix: SOIL)			Client sample ID	RB+	----	----	----	----
			Client sampling date / time	18-Nov-2016 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	EM1614456-001	--------	--------	--------	--------
				Result	----	----	----	----
EN33: TCLP Leach								
Initial pH	----	0.1	pH Unit	**7.4**	----	----	----	----
After HCl pH	----	0.1	pH Unit	**1.4**	----	----	----	----
Extraction Fluid Number	----	1	-	**1**	----	----	----	----
Final pH	----	0.1	pH Unit	**5.7**	----	----	----	----